NEOTROPICAL MYRSINACEAE -- IV

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From continuation of studies of the Myrsinaceae of Mexico and Central America, two new genera are described from the Ardisia Sw. complex, and the subgenus Graphardisia Mez is raised to generic status. Nine species described in Rapanea Aubl., all except one from Mexico and Central America, are transferred to Myrsine L. to follow current practice, not out of any conviction as to the justification for this disposition of the taxa! In preparation for a definitive treatment of the family for this region, a review of generic relationships is being made.

Although exploration of the Neotropics has accelerated during the past three decades, and remarkable additions to the flora have been discovered, much remains to be done. Such families as the Myrsinaceae merit special attention. So few collections of species of this family have been made that a high percentage of the taxa are known only from type material. Altogether too many collections are in fruiting stages. For identification and for determination of relationships flowering material is necessary, but such material represents less than a third of specimens in herbaria.

IBARRAEA Lundell, gen. nov. -- Frutices vel arbusculae, foliis alternis, petiolatis, integerrimis; inflorescentiae glabrae, paniculatae rarius simplices racemosae, terminales vel raro axillares; flores pedicellati, racemosi, 5-meri, hermaphroditi; sepala libera, symmetrica, punctata; petala subcarnosa vel subcoriacea, basi connata, lobis patentibus, punctatis, ad faucem zona aurantiace vel flavo-papillosa praeditis; stamina petalis bene breviora, antheris maximis, birimose dehiscentibus, dorso concoloribus epunctatis vel ad thecas parce punctatis, filamentis brevibus latis; ovarium glabrum, ovoideum, stylo stamina superante; placenta pluriseriatim pluri- vel multiovulata; fructus globosus vel subglobosus, 1-spermus.

TYPE SPECIES: Ibarraea mayana (Lundell) Lundell (= Ardisia mayana Lundell).

The genus stands out among all the genera of the family known from the Neotropics in having a large star-shaped corolla eye which is either bright orange or deep yellow. The colored glandular-papillate eye consists of five broad triangular rays which are one-fourth to one-half the length of the thick petals, extending above the corolla throat and opposite the stamens.

The flowers are very colorful, and the natives of Guatemala, who call the plant "chilil," use them during Easter week for decorating the altars of their churches.

The racemose flowers, either in long simple axillary racemes or in terminal panicles of racemes, have mostly elongated rigid pedicels which usually are accrescent post anthesis sometimes giving the racemes a pseudo-corymbose form.

Other features contributing to the distinctness of the genus Ibarraea are the large coriaceous long-petiolate leaves, punctate when dry with conspicuous rounded glands, these distributed over the entire surface, as in I. paschalis (Donn. Sm.) Lundell or restricted to the apex and marginal area, as in I. mayana. The ovules, which are pluriseriate, mostly number in the thirties but some collections from Peten have ovules numbering in the forties and fifties, with the greatest number (64--66) in the generic holotype of I. mayana (Contreras 1162, LL). The large ovate anthers are connivent into an ovoid column supported by the short thick filaments. Except for the flowers, all of the taxa in the genus Ibarraea are strictly glabrous. The branchlets, as well as leaves, dry pallid.

The genus is named in honor of my distinguished colleague, Sr. Jorge A. Ibarra E., noted conservationist, who founded the Museo Nacional de Historia Natural of Guatemala, and has served as its Director since the founding of the institution in 1948.

Ibarraea is known from the southern Mexican states of Veracruz and Chiapas and Tabasco, south through Guatemala and Belize, and into Honduras and El Salvador.

This is a small natural group related to Ardisia Sw.

IBARRAEA AVENDAÑOI (Lundell) Lundell, comb nov. Ardisia Avendañoi Lundell, Wrightia 6: 61. 1979.

The elliptic leaves, punctate over entire surface, and rounded at apex, the single axillary racemose inflorescences, the broadly ovate sepals glandular-papillate within and densely punctate with minute red-black glands characterize the taxon. I. Avendañoi is known only from fruiting specimens, but it is closely related to I. paschalis (Donn. Sm.) Lundell and I. petenensis (Lundell) Lundell, species with similar leaf punctation.

IBARRAEA DICHROPETALA (Standl.) Lundell, comb. nov. Ardisia dichropetala Standl., Tropical Woods 37: 29. 1934.

This rare species is restricted apparently to Honduras where it has been collected only twice.

IBARRAEA KARWINSKYANA (Mez) Lundell, comb. nov. Ardisia Karwinskyana Mez, Pflanzenreich IV. Fam. 236: 85. 1902.

The species is known only from the type at Leningrad, which I have not seen. It has not been possible, from description, to associate I. Karwinskyana with any of the other described taxa.

IBARRAEA LEUCOCARPA (Lundell) Lundell, comb. nov. Ardisia leucocarpa Lundell, Wrightia 6: 105. 1980.

It is a white-fruited species, a rarity in the Myrsinaceae.

IBARRAEA LINDENII (Mez) Lundell, comb. nov. Ardisia Lindenii Mez, Pflanzenreich IV. Fam. 236: 86. 1902.

This species and I. mayana (Lundell) Lundell are very closely related. It is common in the lowlands of northern Peten, Guatemala and the adjacent state of Tabasco, Mexico.

IBARRAEA MATUDAE (Lundell) Lundell, comb. nov. Ardisia Matudai Lundell, Lloydia 4: 55. 1941.

Described from Tabasco, Mexico, I. Matudae is very closely related to I. Lindenii.

IBARRAEA MAYANA (Lundell) Lundell, comb. nov. Ardisia mayana Lundell, Wrightia 6: 106. 1980.

The type of the genus Ibarraea, the species is illustrated in the Flora of Guatemala under A. paschalis Donn. Sm. (Fieldiana: Botany, Vol. 24, part VIII, nos. 1 and 2, pp. 135--200, fig. 38. 1966). Contreras 1162 (holotype, LL) was illustrated in fig. 38.

IBARRAEA PASCHALIS (Donn. Sm.) Lundell, comb. nov. Ardisia paschalis Donn. Sm., Bot. Gaz. 18: 5, pl. 1. 1894.

The first species of Ibarraea described, it is beautifully illustrated in the original publication (Bot. Gaz. 19: 5, pl. 1. 1894).

IBARRAEA PETENENSIS (Lundell) Lundell, comb. nov. Ardisia petenensis Lundell, Wrightia 6: 109. 1980.

This distinctive taxon is closely related to I. paschalis (Donn. Sm.) Lundell.

IBARRAEA TONII (Lundell) Lundell, comb. nov. Ardisia Tonii Lundell, Wrightia 6: 111. 1980.

In the absence of flowers, its relationship is doubtful, but the 4- or 5-parted sepals set it apart in the genus Ibarraea. All the other species have 5 sepals.

GRAPHARDISIA (Mez) Lundell, gen. stat. nov. Ardisia subgen. Graphardisia Mez, Pflanzenreich IV. Fam. 236: 59, 78. 1902.

TYPE SPECIES: Graphardisia opegrapha (Oerst.) Lundell (= Ardisia opegrapha Oerst.).

The genus is related to Oerstedianthus Lundell. The two may be separated as follows:

Filaments strictly glabrous; stems and inflorescence glabrous; punctation of all parts dense and blackish; bracts and bractlets usually foliaceous and often persistent; sepals and petals large, accrescent, usually blackened, usually ribbed or with dense elevated black glands . . . . . Graphardisia.

Filaments pubescent with gland-tipped hairs; stems and inflorescence rarely glabrous, usually puberulent, hirtellous

or densely hirsute-tomentose; bractlets and sepals small, not accrescent; sepals not ribbed with glands . . . Oerstedianthus.

GRAPHARDISIA BARTLETTII (Lundell) Lundell, comb. nov. Ardisia Bartlettii Lundell, Contr. Univ. Mich. Herb. 7: 37. 1942.

GRAPHARDISIA BRACTEOLATA (Lundell) Lundell, comb. nov. Ardisia bracteolata Lundell, Wrightia 6: 65. 1979.

GRAPHARDISIA LEWISII (Lundell) Lundell, comb. nov. Ardisia Lewisii Lundell, Wrightia 4: 146. 1970.

The peculiar inflorescence with incurved acute or acicular bractlets subtending pedicels of the racemose flowers is atypical, and the species is doubtfully referable to this genus.

GRAPHARDISIA LILACINA (Lundell) Lundell, comb. nov. Ardisia lilacina Lundell, Wrightia 3: 198. 1966.

GRAPHARDISIA OPEGRAPHA (Oerst.) Lundell, comb. nov. Ardisia opegrapha Oerst., Kjoeb. Vidensk. Meddel. 126. 1861.

The type at Copenhagen, unfortunately in young bud, makes difficult the interpretation of the species in the absence of fully developed flowers.

J. D. Hooker f. (Bot. Mag. t. 6357) illustrates and redescribes Ardisia Oliveri Mast. (Gard. Chron. II. 680. 1877), from a cultivated plant in England. This appears to be a synonym of G. opegrapha (Oerst.) Lundell, as I have treated it in the past.

GRAPHARDISIA PAQUITENSIS (Lundell) Lundell, comb. nov. Ardisia paquitensis Lundell, Phytologia 2: 4. 1941.

GRAPHARDISIA PICTURATA (Lundell) Lundell, comb. nov. Ardisia picturata Lundell, Wrightia 4: 164. 1971.

GRAPHARDISIA SEIBERTII (Standl.) Lundell, comb. nov. Ardisia Seibertii Standl., Ann. Missouri Bot. Gard. 24: 198. 1937.

This is one of the most abundant representatives of the genus judging by the number of collections available. G. Seibertii is the species illustrated in the Flora of Panama from Allen 2226 and 3561 (Ann. Missouri Bot. Gard. 58: 330, fig. 17. 1971). It is not a synonym of Ardisia opegrapha Oerst. to which I assigned it in the Flora.

GRAPHARDISIA SUBCORIACEA (Lundell) Lundell, comb. nov. Ardisia subcoriacea Lundell, Wrightia 3: 193. 1966.

GRAPHARDISIA VIGOI (Lundell) Lundell, comb. nov. Ardisia Vigoi Lundell, Wrightia 6: 94. 1979.

G. Vigoi has denticulate leaves while those of G. Wagneri

are crenulate. All other taxa now recognized in Graphardisia have entire leaves.

GRAPHARDISIA WAGNERI (Mez) Lundell, comb. nov. Ardisia Wagneri Mez, Pflanzenreich IV. 236: 79. 1902.

GRAPHARDISIA ZELAYENSIS (Lundell) Lundell, comb. nov. Ardisia zelayensis Lundell, Wrightia 6: 95. 1979.

OERSTEDIANTHUS Lundell, gen. nov. -- Frutices foliis alternis, petiolatis, integerrimis vel crenatis serratisve; inflorescentia paniculata, terminalis; flores 5-meri, hermaphroditi, umbellati vel subcorymbosi; pedicelli gracillimi; sepala 5, libera vel basi coalita; petala 5; stamina petalis haud multo breviora antheris nigricantibus angustis, rimis apice triangulo-dilatatis dehiscentibus, dorso concoloribus nec punctatis, basi filamentis brevibus affixis, filamentis glanduloso-pubescentibus vel raro subglabris; ovarium glabrum, stylo gracillimo antheras superante vel aequante; ovula pluriseriata; bacca globosa vel subglobosa.

TYPE SPECIES: Oerstedianthus nigrescens (Oerst.) Lundell (= Ardisia nigrescens Oerst.).

The shrubs have branchlets strictly glabrous, minutely puberulent, hirtellous or hirsute-tomentose, the hairs of flower parts sometimes gland-tipped. Pubescence of other parts ranges from puberulent to short pilose with filaments usually pubescent with short gland-tipped hairs. The distinctive anthers are narrowly triangular-linear, usually blackish, attached near base with basal lobes subsagittate or rarely bulbous. They are dehiscent by apical pores which are triangular and usually spreading. The dorsal surface of anthers is epunctate, and the apex is acute-apiculate to cuspidulate.

Oerstedianthus is related to Graphardisia (Mez) Lundell. Both have similar linear-lanceolate anthers which dehisce by apical pores.

The genus is dedicated to A. S. Oersted, pioneer student of the neotropical flora, who described the type species.

OERSTEDIANTHUS BREVIPES (Lundell) Lundell, comb. nov. Ardisia brevipes Lundell, Wrightia 3: 97. 1964.

OERSTEDIANTHUS DONNELL-SMITHII (Mez) Lundell, comb. nov. Ardisia Donnell-Smithii Mez, Bull. Herb. Boiss. ser II, 3: 235. 1903.

OERSTEDIANTHUS ERYTHROCARPUS (Lundell) Lundell, comb. nov. Ardisia erythrocarpa Lundell, Wrightia 2: 59. 1960.

OERSTEDIANTHUS HIRTELLUS (Lundell) Lundell, comb. nov. Ardisia hirtella Lundell, Wrightia 3: 98. 1964.

OERSTEDIANTHUS MITCHELLAE (I. M. Johnston) Lundell, comb. nov. Ardisia Mitchellae I. M. Johnston, Contri. Gray Herb. 81: 96. 1928.

OERSTEDIANTHUS NIGRESCENS (Oerst.) Lundell, comb. nov. Ardisia nigrescens Oerst., Vid. Medd. Kjoebenhavn 130. 1861.

OERSTEDIANTHUS TRINITARIAE (Lundell) Lundell, comb. nov. Ardisia trinitariae Lundell, Wrightia 5: 62. 1974.

OERSTEDIANTHUS TUERCKHEIMII (Donn. Sm.) Lundell, comb. nov. Ardisia Tuerckheimii Donn. Sm., Bot. Gaz. 13: 74. 1888.

OERSTEDIANTHUS TUXTEPECANUS (Lundell) Lundell, comb. nov. Ardisia tuxtepecana Lundell, Wrightia 5: 63. 1974.

MYRSINE ALLENII (Lundell) Lundell, comb. nov. Rapanea Allenii Lundell, Wrightia 4: 168. 1971.

MYRSINE CALCARATA (Lundell) Lundell, comb. nov. Rapanea calcarata Lundell, Wrightia 5: 295. 1976.

MYRSINE JURGENSENII (Mez) Lundell, comb. nov. Rapanea Jurgensenii Mez, Pflanzenreich IV, Fam. 236: 388. 1902.

MYRSINE MEXICANA (Lundell) Lundell, comb. nov. Rapanea mexicana Lundell, Wrightia 5: 296. 1976.

MYRSINE PANAMENSIS (Lundell) Lundell, comb. nov. Rapanea panamensis Lundell, Wrightia 4: 169. 1971.

MYRSINE PERUVIANA (Lundell) Lundell, comb. nov. Rapanea peruviana Lundell, Wrightia 6: 117. 1980.

MYRSINE PITTIERI (Mez) Lundell, comb. nov. Rapanea Pittieri Mez, Pflanzenreich IV, Fam. 236: 378. 1902.

MYRSINE REFLEXIFLORA (Lundell) Lundell, comb. nov. Rapanea reflexiflora Lundell, Wrightia 5: 297. 1976.

MYRSINE RUFA (Lundell) Lundell, comb. nov. Rapanea rufa Lundell, Wrightia 5: 298. 1976.